ABSTRACT

In a 32-channel wavelength division multiplexing optical transmission system, for example, four optical transmitters are grouped in eight groups. Each group is provided with a control optical transmitter. The control light transmitter regulates the level of a control light so that the total level of light transmitted from the corresponding group is equal to the total level of four signal lights. An optical transmission line of the above-mentioned system is normally regulated beforehand so that the wavelength characteristic of the following signal lights is flat when light at the total level of thirty-two signal lights in a predetermined range of wavelengths is transmitted. Therefore, in the system according to the invention, independent of the number of signal lights, the receive level of a signal light is unchangeable.